

# Guaymas Basin vent field MOCNESS tow station list from R/V Atlantis II AII-112-28 in the Guaymas Basin from 1985-1985 (Vent Benthos project)

**Website:** <https://www.bco-dmo.org/dataset/473767>

**Version:** 2013-12-31

## Project

» [Benthic Ecology of Soft Sediments Associated with Hydrothermal Vents](#) (Vent Benthos)

Contributors	Affiliation	Role
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## Dataset Description

Zooplankton from the Guaymas Basin deep-sea vent field were collected with a 1 m<sup>2</sup> MOCNESS to examine the distribution of total standing stock, taxonomic composition, size-frequency distribution of zooplankton, and the species composition of calanoid copepods. Low altitude ( similar to 100 m above the bottom) horizontal tows along and across the axis of the basin's southern trough, and oblique tows from the bottom of the basin ( similar to 2000 m) to the surface were made. Total biomass in near-bottom samples (range: 13-46 cc/1000 m<sup>3</sup>) was only about a factor of 10 lower than in the upper 100 m. Of the 67 species of copepods identified in two samples taken on low altitude tows, only 15 occurred in both samples. Many of the species in this relatively diverse community remain to be described. Larval and post-larval forms of benthic clams, gastropods, polychaetes, and crustaceans associated with the vents were collected 100-200 m above the southern trough, indicating the post-larvae may play an active role in dispersal of hydrothermal vent species.

## Methods & Sampling

### Relevant References:

[Drawings and descriptions of some deep-sea copepods living above the Guaymas Basin hydrothermal vent field.](#)

Copley, N J; Wiebe, PH; Woods Hole Oceanographic Inst., MA (USA). Technical Rpt. WHOI-90-15.

Deep-water zooplankton of the Guaymas Basin hydrothermal vent field.

Wiebe, PH; Copley, N; Van Dover, C; Tamse, A; Manrique, F. Deep-Sea Research 35.6A (1988): 985-1013.

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## Data Files

File
<b>moc_list.csv</b> (Comma Separated Values (.csv), 933 bytes) MD5:55fd5c3b73d648ee8afb4341c62259a5 Primary data file for dataset ID 473767

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## Parameters

Parameter	Description	Units
tow	MOCNESS tow id	alphanumeric
year	year	YYYY
month	month; local time	text
day	day of month; local time	integer
time_start_local	time tow began; local time	HHMM
time_end_local	time tow ended; local time	HHMM
lat_start	starting latitude; north is positive	decimal degrees
lon_start	starting longitude; east is positive	decimal degrees
lat_end	ending latitude; north is positive	decimal degrees
lon_end	ending longitude; east is positive	decimal degrees
depth_interval	depth interval of tow	meters
tow_type	how tow was drawn through the water	text
num_samples	number of successful samples in the tow	integer

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## Instruments

<b>Dataset-specific Instrument Name</b>	MOC1
<b>Generic Instrument Name</b>	MOCNESS1
<b>Dataset-specific Description</b>	333 micron mesh, 9 nets
<b>Generic Instrument Description</b>	The Multiple Opening/Closing Net and Environmental Sensing System or MOCNESS is a family of net systems based on the Tucker Trawl principle. The MOCNESS-1 carries nine 1-m <sup>2</sup> nets usually of 335 micrometer mesh and is intended for use with the macrozooplankton. All nets are black to reduce contrast with the background. A motor/toggle release assembly is mounted on the top portion of the frame and stainless steel cables with swaged fittings are used to attach the net bar to the toggle release. A stepping motor in a pressure compensated case filled with oil turns the escapement crankshaft of the toggle release which sequentially releases the nets to an open then closed position on command from the surface. -- from the MOCNESS Operations Manual (1999 + 2003).

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## Deployments

### All-112-28

<b>Website</b>	<a href="https://www.bco-dmo.org/deployment/473669">https://www.bco-dmo.org/deployment/473669</a>
<b>Platform</b>	R/V Atlantis II
<b>Report</b>	<a href="http://bcodata.whoi.edu/Wiebe_Vents/ATII-112-28_cruise_rpt_Wiebe.pdf">http://bcodata.whoi.edu/Wiebe_Vents/ATII-112-28_cruise_rpt_Wiebe.pdf</a>
<b>Start Date</b>	1985-07-24
<b>End Date</b>	1985-08-03
<b>Description</b>	Zooplankton from the Guaymas Basin deep-sea vent field were collected with a 1 m <sup>2</sup> MOCNESS to examine the distribution of total standing stock, taxonomic composition, size-frequency distribution of zooplankton, and the species composition of calanoid copepods.

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## Project Information

### Benthic Ecology of Soft Sediments Associated with Hydrothermal Vents (Vent Benthos)

**Coverage:** Guaymas Basin

Description not available.

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## Funding

Funding Source	Award
<a href="#">NSF Division of Ocean Sciences (NSF OCE)</a>	<a href="#">OCE-8709962</a>
<a href="#">NSF Division of Ocean Sciences (NSF OCE)</a>	<a href="#">OCE-8311201</a>

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